Page 4 of 7

REMARKS

The claims are hereby amended in order to more clearly define the present invention and to place the claims in better condition for examination.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on September 18, 2001.

Sarah B. Simmons

CLT01/4497470v1

Page 5 of 7

Version With Markings to Show Changes Made:

1. (Amended) An imaging device for capturing optical image data, the device comprising:

an imager for generating an image signal;

a memory component that receives the image signal from the imager and stores the image signal as image data; and

a processor that executes an exposure control routine by implementing a first module that controls the exposure and gain setting in the imager and a second module that implements computations in response to [image data transmitted from the memory component and] exposure data transmitted from the first module to determine a targeted exposure and gain setting.

- 36. (New) The imaging device of Claim 1, wherein the second module implements computations in response to exposure data transmitted from the first module and image data transmitted from the memory component.
- 37. (New) An imaging device for capturing optical image data: the device comprising:

an imager for generating an image signal;

a memory component that receives the image signal from the imager and stores the image signal is image data; and

a multi-tasking operating system that implements a multi-tasked exposure control routine.

38. (New) The imaging device of Claim 37, wherein the multi-tasked exposure control routine further comprises a first module that controls the exposure and gain setting in the imager and a second module that implements computations in response to exposure data

Page 6 of 7

transmitted from the first module to determine a targeted exposure and gain setting.

- 39. (New) The imaging device of Claim 38, wherein the second module implements computations in response to exposure data transmitted from the first module and image data transmitted from the memory component.
- 40. (New) The imaging device of Claim 37, wherein the multi-tasking operating system is controlled by a processor within the imaging device that executes all of the imaging device multi-tasking applications.
- 41. (New) The imaging device of Claim 37, wherein the first module is implemented in a high priority thread.
- 42. (New) The imaging device of Claim 37, wherein the first module is implemented in a high priority task.
- 43. (New) The imaging device of Claim 37, wherein the first module is implemented in an interrupt service routine.
- 44. (New) The imaging device of Claim 37, wherein the second module is implemented in a low priority thread routine.
- 45. (New) The imaging device of Claim 37, wherein the second module is implemented in a low priority task routine.
- 46. (New) The imaging device of Claim 37, wherein the second module includes histogram processing.
- 47. (New) The imaging device of Claim 37, wherein the first module is implemented in a an interrupt service routine and the second module is implemented in a low priority task routine.

Page 7 of 7

48. (New) An imaging device for capturing optical image data, the device comprising:

an imager for generating an image signal;

a memory component that receives the image signal from the imager and stores the image signal as image data; and

a multi-tasking operating system that allows for the simultaneous execution of a high priority module for real time control of the imager and a lower priority module that examines the image signal and provides feedback to the high priority module routine.